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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/852,855 | 05/10/2001 | Raymond A. Berard | 14060/198355(IRC289) | 5678 |

23370 7590 04/05/2006

JOHN S. PRATT, ESQ
KILPATRICK STOCKTON, LLP
1100 PEACHTREE STREET
ATLANTA, GA 30309

| EXAMINER |
|---|
| YOON, TAE H |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1714 | |

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/852,855 | BERARD, RAYMOND A. | |
| | Examiner | Art Unit | |
| | Tae H. Yoon | 1714 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *13 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-13 and 15-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Note new examiner, and the finality of the last office action is withdrawn due to new ground of rejection.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-13 and 15-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-28 of copending Application No. US 2006/0031997 A1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the temperature and dissolution time of said copending Application encompass the instant temperature and time.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-9, 11-13, 15, 16 and 18-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is New Matter rejection.

The recited "below 155°C" does not have support in the originally filed specification contrary to applicant's assertion. Applicant points to page 5, lines 10-11 and page 6, lines 27-28 for the support, but the examiner disagrees with such assertion. However, one must read the context, and the recited temperatures below 160°C on said page 5 is related to the proceeding sentence, [T] pressure vessel is heated to a temperature of about 130°C to about 155°C, more particularly to about 145°C, ---. Thus said temperature below 160°C means the temperature of about 130°C to about 155°C, not below 155°C. The teaching on page 6, lines 27-28 is related to the teaching on page 5 also. Applicant points various locations of specification for support, but the recited "below 155°C" encompassing 154.5°C or 152°C for example cannot be found. The temperature of 155°C does not support the recited below 155°C. Also, temperature of 150°C, 147°C, 145°C, 143°C and 130°C do not support the recited below 155°C which includes 154.5°C or 152°C for example.

The recited dissolution times of 45 minutes or less, 37 minutes or less, 23 minutes or less and 15 minutes or less do not have support either since said dissolution times of 45 minutes or less encompasses 3 minutes for example. The recited 45, 37, 23 and 15 minutes have support.

The recited "about 145°C" of claim 11 does not have support since 145°C of the sample 8 in example is 145°C not about 145°C. Note that the measurement of a temperature by a thermometer is the exact science, not a rough measurement.

Note that the limitation recited in the specification cannot be read into the claim reciting a broad range.

Claims 1-13 and 15-20 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the dissolution temperature of 45, 37, 23 and 15 minutes, does not reasonably provide enablement for the dissolution temperature of 45, 37, 23 and 15 minutes or less. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

As discussed above, the recited 15 minutes or less encompasses 30 seconds for example, and applicant failed to show that said 30 seconds enable the invention.

Claims 1-13 and 15-20 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the composition having a solvent concentration of 80%, does not reasonably provide enablement for the composition

without any amount. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Note that the dissolution time is dependent on the amount of nylon in a solvent, and the examples of the specification use 80% concentration of a solvent. Applicant failed to show that a composition comprising 10% of solvent and 90% of nylon would yield dissolved nylon at temperature of 130°C and a dissolution time of 30 seconds or 15 minutes, for example. Claims 7 and 8 do not recite amounts of a solvent in the composition, but the amount of alkanol (ethanol) in water or solvent.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited temperature of about 155°C improperly broadens the scope of claim 1 wherein below 155°C is recited since said about 155°C encompasses 155.2°C for example.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-12 and 15-20 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yang et al (US 6,036,726).

First, the discussion of Yang et al from paragraph 2 of the office action dated 7/15/2004 is incorporated here by reference.

The examiner points out that the overlapping range such as temperature and dissolution time is anticipation. The preferred temperature of 140-220°C on col. 7, line 1 and claim 3 encompasses the instant temperature. See ***In re Mills***, 477 F2d 649, 176 USPQ 196 (CCPA 1972); Reference must be considered for all that is discloses and must not be limited to preferred embodiments or working examples. Yang et al also teach the use of inert gas or pressure vessel in order to get an elevated pressure at col. 7, lines 4-8, and such use would inherently yield a pressure higher than the equilibrium vapor pressure of a solvent. Also, note that claims 1-8, 10-12 and 15-20 do not recite a particular pressure and thus 0.5 psig higher than the equilibrium vapor pressure of a solvent, for example, would meet the invention, and the teaching of the use of inert gas or pressure vessel would meet the recited pressure. It is well known in chemistry that a

higher pressure would yield a faster dissolution of a polymer such as nylon in a solvent, and that a pressure vessel found in a laboratory or plant inherently yields a pressure higher than the equilibrium vapor pressure of a solvent, otherwise it would not be called a pressure vessel. Even the use of a pressure vessel in order to shorten (cooking) time is well known to person without a knowledge of chemistry such as cooks and house wives, and a pressure cooker (vessel) found in kitchen of a home yields a faster cooking than a regular cooker or pot. Yang et al teach that one object of the invention is to avoid any substantial degradation of the polymer during the solvating step at col. 8, lines 54-56 which is same as that of the instant invention (Field of Invention). Thus, the use a the instant higher pressure in Yang et al is well warranted.

Applicant also points example 29 for the use of ethylene glycol, but other examples and claim 14 teach an aqueous solution of 1-butanol and ethanol since they are inexpensive (col. 6, line 48-50). Thus, the use of glycol would be discouraged, and

Claims 1-13 and 15-20 are rejected under 35 U.S.C. 103(a) as obvious over Yang et al (US 6,036,726).

Claim 13 further recites that the pressure head yields a pressure higher than the equilibrium vapor pressure of a solvent over Yang et al. However, Yang et al teach employing a pressure vessel in order to get an elevated pressure, and thus a pressure vessel having a pressure head is an obvious modification, and choosing a temperature and dissolution time within the range disclosed by Yang et al is a *prima facie* obviousness absent showing otherwise.

It would have been obvious to one skilled in the art the time of invention to utilize a pressure vessel having a pressure head in order to get an elevated pressure in Yang et al since Yang et al teach employing a pressure vessel and since a pressure vessel having a pressure head is an obvious design modification since a solvent entering from a (pressure) head would have a higher contact with a nylon than that entering from the said or bottom of a pressure vessel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tae H Yoon
Primary Examiner
Art Unit 1714

THY/April 3, 2006